DOCUMENT RESUME

ED 197 525 EC 131 727

AUTHOR	Plowman, Paul D.
TITLE	Teaching the Gifted and Talented in the Social Studies Classroom.
INSTITUTION	National Education Association, Washington, D.C.
REPORT NO	ISBN-0-8106-0737-9
PUB DATE	80
NOTE	53p.: A part of the Teaching the Gifted and Talented in the Content Area Series, Fred B. Tuttle, Jr., Series Editor. For related documents, see EC 131 721-728.
AVAILABLE FROM	NEA Order Department, The Academic Building, New Haven, CT 06516 ($4.00, Stock No. 0737-9-00); Also a part of "Educating Gifted and Talented Students" (Edupak) comprised of filmstrips, cassettes, books ($147.40, Stock No. 070-1-00).
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Gifted; *Learning Activities; Secondary Education; *Social Studies; Student Characteristics; *Talent; Talent Identification; Teaching Methods; *Units of Study

ABSTRACT

As part of the "Educating Gifted and Talented Students" series, the booklet offers guidelines for social studies teachers working with gifted students in grades 7 through 12. Characteristics of the gifted and talented are described and criteria for talent identification are pointed out. General strategies and strategies specifically for teaching the gifted are reviewed. The bulk of the booklet contains teaching strategies for use in social studies programs. Strategies are outlined for grades 7 through 12, grades 7 through 9, and grades 10 through 12; and a sample unit on the study of creative people for middle school gifted students is offered. Additional sample units are provided for such areas as relations with other countries. Exercises in critical judgment and reflective reasoning are listed and the importance of including creativity as part of instruction is stressed. (SBH)

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Teaching the Gifted and Talented in the Social Studies Classroom

by
Paul D. Plowman

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EC 131 727

NEA's Teaching the Gifted and Talented in the Content Areas series
Editor: Frederick B. Tuttle, Jr.

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Library of Congress Cataloging in Publication Data

Plowman, Paul Dearborne.

Teaching the gifted and talented in the social studies classroom.

Bibliography: p.

1. Social sciences—Study and teaching—United States. 2. Gifted children—Education— United States. I. Title.
H62.5.U5P53 300'.7'1273 79-25227
ISBN 0-8106-0737-9

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INTRODUCTION

Human beings differ in the way they perceive and react to visible and invisible stimuli. They differ in the way they see and respond to social situations, to sunsets, and to abstract symbols. They differ in the meanings they attach to words, to artistic creation, and to their world of work. The sum of these differences among individuals establishes each person's uniqueness, identity, and aura of beauty. Within a social milieu of differences, people expand their awareness, fashion their individuality, become more human, and perfect the quality of their lives.

The gifted and talented differ from the rest of society in the types of questions they ask, the interests they pursue, the inventions they produce, and the problems they solve. The unique characteristics of this group require different types of learner objectives, dialog, and assignments; teachers with special training; opportunities to interact with intellectual peers; and reward systems that encourage productive thinking and invention. These unique characteristics provide a starting point in clarifying needs, establishing goals and objectives, formulating curriculum content, and selecting or designing teaching strategies.

This monograph describes the characteristics of the gifted and talented within the social studies classroom, shows how the social studies teacher can identify the gifted and talented, and describes appropriate classroom strategies. Suggestions for developing creativity and intelligence can be used to provide challenging, meaningful, and appropriate learning opportunities for the gifted within regular class, special class, and tutorial settings. When teachers improve the quality of their teaching, they improve the quality and effectiveness of their students' lives.

Before looking at the characteristics of students, at identification procedures, and at teaching strategies, it is appropriate to discuss the nature of social studies and social science programs and examine their special value to gifted and talented students.

"Social" is a word that suggests relationships among individuals and groups, their institutions, and their environments. Social studies and the social science disciplines focus on and describe the interplay of life and environmental

forces that affect how persons behave, what they accomplish, and the satisfactions they derive from existence. In social studies programs, we note how individuals fashion their lives, behave toward one another, govern their own actions, solve perplexing problems, and prepare for individual and collective futures.

Traditionally, the content of the social studies curriculum has been derived from the concepts, generalizations, and facts of the academic disciplines: anthropology, economics, geography, history, political science, psychology, and sociology. Interdisciplinary topics such as contemporary affairs, citizenship, consent, authority, power, responsibility, morality, justice, social control, societal change, conflict, interdependence, and cultural diversity have also been highlighted. Attention has been directed toward human needs and wants, work and employment, property, environmental resources and resource management, scarcity and abundance, and cause and effect relationships. Historical events have been analyzed and interpreted from social, political, economic, military, and psychological perspectives. To a large extent, the job of the social studies teacher has been to provide students with factual background and some experience in developing skills essential for good citizenship.

In recent years teachers have examined new ways to improve human beings and their interrelationships. There appears to be a growing interest in such potentially life-enriching areas of study as the humanities, future studies, values clarification, humanistic psychology, transpersonal education (45), and creative problem solving. Social studies teachers have attempted to integrate and use content from a number of traditional and esoteric sources to open up new vistas of thought. As a result of mind-expanding professional- and personal-growth workshops, social studies teachers may now be looking more closely at the energizing, mobilizing, and transforming forces within society. Alone and together, teachers and students can explore multiple realities and levels of consciousness—and share a dream of what human beings can become.

Thus social studies is no longer perceived as a static accumulation of facts, sterile objectives, and warmed-over lesson plans. Instead it is seen as a discipline that combines

content and experience and provides a setting in which both the student and the teacher can perfect aspects of themselves and advance their special dreams. Social studies teachers, parents, curriculum consultants, and boards of education are becoming increasingly aware that each social studies class can contribute to the formulation and advancement of those dreams.

> Cultures and individuals thrive when they are continuously transformed through extrapolations of the past and the present into the future . . . and when guided by a vision of what might be. (40)

It is "a basic human need to arrive at some image of the future in which we have enough confidence that we are willing to base our actions upon it." (27, see also 18, 28) Social studies teachers play (or can play) a major role in helping their students create realistic images of what might be. They provide the environments and settings from which ideas and principles will emerge.

Teachers recognize that tomorrow's generation of leaders and thinkers will emerge from today's population of gifted and talented students. Our survival and growth as a nation depends on this. However, teachers must not come to view this special class of students as a homogenous group, a bulk human resource from which new ideas and products will emanate. These young people have individual strengths and weaknesses and needs, and it is the teacher's primary responsibility and concern to provide an educational setting in which each student can fully realize his or her potential.

Once we accept individual children as the focus of our attention, we can describe the characteristics of individuals with exceptional abilities and potential in the social studies and then find specific techniques for locating them within our classes. Having identified these students, however, we must then provide differentiated instruction building upon their characteristics and leading them through a curriculum that will help them become creative leaders of our society.

CHARACTERISTICS OF THE GIFTED AND TALENTED WITHIN THE SOCIAL STUDIES CLASSROOM

Students gifted in social studies are those who seem to

have a natural inclination toward and interest in other human beings, in ideas about them, and in the relationships among people and their social, political, and economic institutions. Out of this interest there seems to emerge a need to understand cause and effect, a need to look beyond facts to the complex of reasons that may determine events, principles, and laws.

Such students spend free time in school and at home reading about historical and current events and about why persons behave the way they do. They may reveal an interest in and a comprehension of economic indicators, principles, and theory. They may understand the value and use of different map projections, the origins and development of human beings in different parts of the world, and the effect of climatic and other environmental conditions on human development. The gifted often reveal a certain precocity in comprehending sequences of events and in forecasting the extension of trends. In addition, children gifted in social studies tend to (1) concentrate for fairly long periods of time on the subject at hand, (2) turn in extra work, (3) show an ability to relate content from economics, political science, sociology, and psychology, (4) identify ways of applying what is learned in class to everyday life, (5) show a startling understanding of rather mature concepts, (6) and relish portraying what has been learned through role-playing, original skits, talks, film, slide lectures, and written assignments.

To be sure, such children may become bored with class activities that are repetitious, lacking in challenge, and involve only the memorization of facts. Research several years ago showed that most social studies teachers used examinations in which 80 to 95 percent of the questions were based on memory; in the lower grades, many teachers resorted to what Gallagher has disparagingly called the "Holiday Curriculum." (13) Certainly there is room in the social studies curriculum for serious inquiry, critical thinking, and creative problem solving. These elements are not just intended to be "mental pushups" that relieve the tedium of the day. Instead, they should be integrated with basic classroom content. What is more important: for a child to memorize that Adam Smith wrote *The Wealth of Nations* in 1776, or for a child to learn how to generate several solutions to a

given problem, prioritize these solutions, and decide upon and be able to defend one solution as the best solution to that problem?

Identification of the Gifted and Talented

Unless they are trained to do so, some teachers do not do a very effective job of identifying the gifted and talented in their classroom. (36, 53) However, with some training in what to look for, teacher effectiveness increases dramatically. An easy way to begin is to use screening and nomination forms, rating scales, or checklists that are used by school districts with established reputations in conducting programs for the gifted child. One such checklist, "Characteristics Evidenced by the Pupil," is one of the tools used by teachers and counselors in a number of California school districts to identify, place, program, and evaluate gifted students. (10)

_____ Extensive reading
_____ Interest in academic activities
_____ Rapport with teacher
_____ Strong motivation to learn
_____ Proficiency in basic skills (beyond grade level)
_____ Exceptional memory
_____ Advanced vocabulary, verbal fluency
_____ Wide range of interests
_____ Acceptance of responsibility
_____ Ability to work independently
_____ Advanced research skills
_____ Experimentation with new ideas
_____ Intellectual curiosity
_____ Perceiving whole/part relationships
_____ Critical thinking
_____ Ability to solve problems
_____ Originality of thinking
_____ Mature or complex sense of humor
_____ Interaction with intellectual peers
_____ Acceptance of leadership roles
_____ Goal directed
_____ Positive self-image
_____ Self-understanding
_____ Other _____

Another set of criteria that social studies teachers can use to identify the gifted and talented follows. The gifted and talented:

- are conceptually advanced for their age.
- are a storehouse of advanced, technical, or very specific knowledge.
- enjoy difficult or complex tasks.
- set high standards for independent projects.
- are recognized by classmates as a source of new ideas and knowledge and are recognized as group strategists or organizers.
- see humor in human relationships and are able to laugh at themselves.
- tell or write imaginary stories.
- have wide-ranging and/or highly focused interests.
- see relationships that other people do not.
- absorb knowledge easily and in a minimum time.
- are advanced, intensive, and extensive readers—at least two grade levels above class placement.
- use self-survival mechanisms—e.g., fantasy when the pace of learning is too slow, the generalizations are too simple, the content is too mundane, or the instruction is geared at a depressingly low conceptual-comprehension level.

It can be especially difficult to identify culturally disadvantaged or underachieving gifted children from our compensatory education, bilingual, and migrant populations. With children in these groups, teachers should look for early evidence of school-related learning, maturation, active and persistent exploration of the environment, and imitation of adult behavior. These children often question established ways of doing things and may handle assignments and directions in unexpected ways. Often we must look for demonstration of their abilities within the contexts of their own cultures and cultural expectations. (53, 6) In addition, these children often display unusual resourcefulness in coping with responsibilities, deprivations, lack of structure and direction, opportunities, problems, obstacles, frustrations, and overly structured settings. They show a playfulness with ideas and a sense of humor. The teacher should

also look at their achievements, skills, scores on intellectual ability tests, aptitude test scores, and ratings on maturation profiles.

The gifted may also be identified through nonstandard techniques, including reports by parents and others. Peer nominations for certain activities or programs (in or out of school) can tell us which children are considered by their chronological peers to be group leaders—unusually resourceful, problem solvers, strategists. (See another volume in this series, *Characteristics and Identification of Gifted and Talented Students*, for a more complete discussion of identification procedures and sample instruments.)

The identification process should never become a casual or haphazard affair, a guessing game, or a hurried attempt to pull together a group of bright children in order to qualify for state or federal money. An assessment made early in a student's career can affect all subsequent educational programming for that child. In one instance a very young child was "judged" of average ability solely on the basis of a written intelligence test administered in first grade. As a result of this assessment the child was programmed into average classes with non-specialized teachers and average materials for most of his first five years of school. What the judges had overlooked was that the child had eye-hand coordination problems. In the sixth grade a psychologist retested and reassessed this child, and the child was identified as strongly gifted. Assessments are used not only for purposes of placement, but also to plan individualized instruction and to evaluate individual growth and program effectiveness.

THE STRATEGY OF STRATEGIES

Strategies are those carefully conceived and executed plans and methods designed to provide differentiated programming to meet the unique needs of the gifted and in so doing maximize human development and obtain the greatest benefits from the creative, intellectual, and leadership resources of the young. Teaching strategies normally include such activities as:

1. constructing and/or rearranging physical and psychosocial environments,

2. defining and communicating expectancies based upon individual and class assessment,
3. establishing what students need to acquire knowledge, gain skills, and grow in insight and maturity,
4. resolving needs through experiences with materials, equipment, and other persons,
5. providing knowledge and access to sources of knowledge,
6. helping students acquire certain skills,
7. encouraging creative thought and production.

Tested strategies for working with the gifted are described in the professional literature and are available from state departments of education, those public school districts with state-approved programs for these children, and certain teacher-training institutions. The Office of Education for the Gifted and Talented in the U.S. Office of Education and the National/State Leadership Training Institute for the Gifted and Talented both recommend particular books for meeting the differentiated needs of gifted and talented students. To assure a greater likelihood of success and acceptance, these programs should include operational-administrative strategies as well as pupil-teacher strategies. Program goals should always include a built-in evaluation component, so performance can be measured objectively. (38)

Gifted and talented children should be valued not for their brilliance or for their achievements, but as human beings. They need daily access to other bright persons (teachers, counselors, and other students) to whom they can relate and share their "far-out" ideas and dreams. In this way they can discover that it is all right to excel. Since most social studies teachers have a basic interest in other human beings, they should find it easy to relate to individual gifted pupils. Leaving teacher-pupil roles behind (at least for a time), teachers could elicit dialog on how the gifted and talented feel about painting a picture, catching butterflies, eating cold soup, watching a sunrise, participating in spelling bees, solving problems, observing change, and dozens of other topics. Teachers and students alike will learn from each other and feel great about being valued by the other person. (32, 21)

Parents, principals, and other teachers also should be led to understand the importance of treating the gifted as individuals and not as "performers." Parent education and inservice education for the entire staff may pay dividends in the form of cooperative principal-teacher, teacher-teacher, and parent-teacher effort to recognize and deal with the developmental needs and problems of this group. A favorite teacher may still need to serve as a mentor, a home base, a refuge from a hostile world—in short, as a person to run interference for certain gifted and talented students. (52) But there is some comfort in this being a cooperative endeavor.

This monograph contains just a sample of the many needs of the gifted and talented. Teachers can look at the characteristics of this group and define other needs. They can then identify appropriate program options and teaching strategies to meet those needs. Barbara Clark has shown how this can be done in her book, *Growing Up Gifted.* (9) Her horizontal format might be adopted by teachers who wish to develop individual plans for single gifted and talented students and for classes of these children.

Table 1.—The Cognitive Domain

Differentiating Characteristics	Example of Related Needs	Organizational Patterns	Sample of Classroom Strategies
unusual capacity for processing information	to be exposed to a large variety of ideas on many levels	learning centers available at many levels in a variety of subjects	projects involving hypothesizing and hypothesis testing
unusual curiosity and variety of interests	to be exposed to varied subjects and concerns.	integrated curriculum	mentor program; simulation
	to be allowed to pursue ideas as far as their interests take them	flexible scheduling	

Source: Barbara Clark. *Growing Up Gifted—Developing the Potential of Children at Home and at School.* Columbus, Ohio: Charles E. Merrill, 1979, p. 164. Reprinted with permission.

Programs for these children should involve both cognitive and affective development. Students should be given opportunities to sharpen awareness and intuition and become active and worthwhile contributors to their communities. They should have experiences through which they can improve certain talents, like leadership ability.

The characteristics of the gifted and talented suggest the importance of understanding, compassion, and special guidance. Strange as it may seem, many gifted and talented students have low self-esteem and low self-concept. The gifted and talented need to acquire a realistic understanding of their own capabilities and of the capabilities of others. This might be achieved through diagnostic-prescriptive approaches to teaching in which instruction is based on profiles of intellectual and creative abilities as well as on actual academic achievement or lack of achievement. This goal might also be achieved through group-member and group-leader activity (even in the primary grades), through the teacher assuming the role of mentor, or through guidance and counseling programs.

Good teaching can reduce or eliminate impatience and frustration. Good teaching means providing learning opportunities that develop higher intellectual and creative skills and give students a better understanding of themselves. (2, 37, 17, 30, 55) Teachers should help students achieve developmental tasks that earmark increasing maturity and adulthood. (20) Instead of spending 90 percent of their class time learning facts, the gifted may need to spend 70 percent of their in-class time applying and interpreting knowledge; making exciting extrapolations from a particular set of facts; analyzing situations and problems; developing techniques of inquiry, critical thinking, and creative problem solving; differentiating between real and apparent problems; and evaluating situations, actions, and other aspects of society and culture. The gifted and talented should be allowed to learn at their own pace. This means a program that allows flexible progression through subject matter, skill acquisition, courses, and grades.

In social studies good teaching can make productive use of the extraordinary awareness, comprehension, conceptualization, and productivity of the gifted. Students who are

aware of such concepts as conflicting values can study the importance of diversity and the inherent danger of conformity, the danger in fragmentation and discontinuity, the need for unity, the danger of rigid and unmodifiable structures, the importance of competition, and the humanistic need to value and to care for others. Students searching for and demanding clarity and rationality can be helped to see that "ambiguity" is also important because it allows the mind to organize, to structure, to generate ideas, to produce solutions. This notion may indeed be a good lead into group discussions on (1) hemispheric specialization of the brain and the conditions conducive to original thought, (2) group leadership, (3) brainstorming solutions to individual and group problems, and (4) alternative ways of producing an "Aha!" response in creative problem solving. (37, 35, 22)

The reason we have special programs for the retarded, the physically handicapped, the emotionally impaired, and the gifted is that past efforts at mainstreaming failed. These children were given instruction that was not matched to their abilities and needs, and they were left to fend for themselves. Research has clearly established that students who participate in special programs for the gifted may make "striking gains in achievement with accompanying personal and social benefits." (7)

The following list enumerates the fundamental characteristics of teaching and learning strategies in the social science classroom:

1. individual and multifaceted learning plans based upon assessment of cognitive, affective, physical, and social strengths and weaknesses
2. learning activities specifically designed to develop higher intellectual and creative skills
3. a chance to interact with adults who realize that gifted children sometimes need more freedom, less control, and enough time to make discoveries (43)
4. time scheduled for independent work
5. access to an array of persons, experiences, ideas, and environments (40)
6. clarification of values and the opportunity to establish one's own set of values and code of behavior
7. saturation with facts and feeling

8. time scheduled for ideas to incubate (22, 34, 35)
9. thorough examination of concepts, generalizations, and principles
10. opportunities for flexible progression through knowledge and skill acquisition
11. early mastery, even in the primary grades, of the fundamental aspects of such learning skills as:
    a. scanning and rapid reading
    b. classifying knowledge
    c. outlining, abstracting, and synthesizing
    d. making judgments based on evidence and criteria
    e. typing skills
    f. using resource rooms, the library, and learning centers in the classroom
    g. simple computer language
12. rewards for creative effort, for mastery and application of higher intellectual skills.

Having reviewed the needs of the gifted and talented and the ways to identify them, and having reviewed the strategy of basing instruction on general and specific needs, we are now ready to look at specific teaching strategies in social studies programs.

TEACHING STRATEGIES IN SOCIAL STUDIES PROGRAMS

The social sciences can provide the means by which gifted children can acquire the knowledge and skills necessary to become productive leaders in this world. Few gifted children thrive on the lecture approach. They need to be engaged in an active study of human beings and society. This involves an examination of values, relationships, and skills, a sharing and testing of ideas with other persons.

Program options for the gifted in social studies should provide opportunities for direct person-to-person relationships with practicing social scientists. In these interactions the student is exposed to the sphere of activity and influence of psychologists, sociologists, anthropologists, economists, political scientists, and historians. The student may study aspects of social science fields that he or she wants to pursue as an advanced student or as a career aspirant. The oppor-

tunity to study societal, political, and economic institutions firsthand also enables the gifted to comprehend more clearly what features of these institutions are ripe for change.

Independent study is another program option. This approach allows the student to take a close look at a particular subject and become familiar with current research. Small-group seminars provide the milieu for thoroughly testing one's ideas. Seminar members should include persons who want to advance their own opinions, speculate, challenge and be challenged by others, and share a vision of a better world.

Other options include working with committees or clusters in regular classroom settings; attending special classes in and out of school; accelerated or flexible progression through knowledge and/or skill acquisition; project activities (such as participating in real or simulated expeditions; taking part in mock United Nations programs; working as aides to city council, school, or legislative personnel; participating in attempts to come up with creative solutions to social problems; being a member of counseling-instructional programs; working in a political campaign; or taking a special humanities, Great Books, or advanced placement course.

The following general review of social science strategies covers grades seven through nine and ten through twelve. The material is reprinted from a publication of the California State Department of Education. (43)

Social Sciences, Grades Seven Through Nine

The junior high school can provide a basis for enriching the social sciences program for gifted boys and girls by drawing from such disciplines as psychology, sociology, and anthropology.

The major goals in the social sciences include the development of human potential through process goals, personal goals, and situational goals. The student perceives the reasons for specific assignments, is able to communicate abstract ideas, analyzes complex theories and concepts, becomes aware of broad generalizations, uses specific data, and evaluates the reliability of sources.

In the area of personal development, the student learns independently, questions willingly, shares information,

transmits ideas and generalizations into meaningful patterns, expresses intellectual curiosity, profits from constructive criticism, realistically evaluates his strengths and weaknesses, and cultivates honest and direct communication with the teacher.

Gifted students should be introduced to special research projects so that they will begin to follow informally scientific ways of studying.* As they progress to the next grade level, these young people can, through their research, develop more analytical intellectual skills. The class may be assigned the same project or different projects depending on class size, availability of research materials, and individual interests and time. Oral discussions will afford experience in oral expression as well as opportunity to develop mental alertness and quick thinking.

Before the skills of research techniques can be mastered, a study of logic is necessary. Steps in a unit on logic would include inductive and deductive reasoning, outlining, the research paper, selection of a hypothesis, class evaluation of a student's paper, and oral presentation. The gifted individual must learn to use the strategy of decision making: (1) identifying a problem; (2) collecting the evidence; and (3) making a relevant decision based on the evidence.

A value-centered approach stresses the application of classroom-acquired information to the real-life world. Concept-breaking questions not only polish communication skills; they also indicate the importance of distinguishing fact from opinion and assist students in forming intrinsic values.

When teaching subject-area skills, one may find it worthwhile to begin a unit inductively and end it deductively. The reproduction of correct answers by the students (convergent production) is a lower-level intellectual task and is an ability to be used only as a foundation for evolving higher intellectual skills. If the approach is to become deductive, the students will have to do in-depth research.

The field-study approach can be used effectively for the development of creativity in the social sciences. Topics and

* As it is used here, the term "scientific" means not only thoroughness and accuracy but also the use of systematic methods that approximate those of scientific inquiry.

issues to be explored in interview situations may be suggested or assigned to the students. The field-study method teaches the gifted young person, while he learns the art of inquiry, to communicate effectively, to understand other people's opinions, and to develop sensitivity to human problems.

Social Sciences, Grades Ten Through Twelve

The capacity to reason reflectively and constructively concerning the problems of human beings and their world should be the major goal of instruction for the gifted in the social sciences. The crux of instruction in the social sciences becomes one of identifying the kind of program that will enlarge, develop, and sharpen this capacity.

Four subgoals, in both the cognitive and the affective realms, are essential if the major goal is to be achieved: (1) depth and precision of understanding on the part of students in handling concepts and ideas rather than mere additions to a store of facts; (2) the ability to think abstractly, critically, and reflectively with social science data; (3) a set of values and attitudes of the kind that are concerned with one's approach to the study of one's field—concerned, that is, with the rules of the game, such as respect for facts, open-mindedness, and the like; and (4) participation in group action of a kind that reflects a desire on the part of the participant to seek, either as leader or as follower, the solutions to social problems.

In this program the need exists to formulate goals in behavioral or performance terms. Having postulated the goals, the teacher, together with the students, should plan and design a sequence of studies likely to achieve these goals. Whatever the design, it should be founded on the belief that a proper social sciences program consists of (1) modes and processes of inquiry; (2) concepts and generalizations from the social sciences that are the results of inquiry in these disciplines and that also serve as tools to facilitate further inquiry; and (3) particular time and place settings that provide the arenas in which the processes of inquiry and the conceptual techniques are to function or are to be developed.

The sequence for the tenth grade might be grounded in the history of the United States, while that for grade eleven

can be concentrated mainly on the history of the Western world outside the United States, with provision for in-depth study of one or two Eastern cultures, such as that of India or that of China. Grade twelve could emphasize a study of decision making in American society, as well as a study of some selected social sciences disciplines. The sequences should encourage and facilitate the integration of concepts previously encountered in other settings. Suggested settings should be substantially different from the typical approach in world history; the emphasis can be placed, for example, on national groupings, on the phenomena of conflict, and how conflicts have affected society. A well-thought-out plan will result in a course of study that has substance, manageability, meaningfulness, and much significance in understanding today's world. Work in historical integration should help considerably to dispel the "wearying qualities" of traditional programs—a weariness which both good and indifferent students have shared.

Strategies—General Approaches—Grades 7 through 12

1. Assess the value of each of the social sciences to an understanding of human beings, their origins, their present condition, and the likelihood that they will create a better world in ten, twenty, fifty, or a thousand years. Use a multidisciplinary and multicultural approach in showing how human beings and their institutions have evolved during the past ten, twenty, or fifty years.
2. Establish criteria to assess significance and then determine what, in fact, are the significant events that have been and should be a part of recorded history.
3. Have students analyze changing values and the forces that cause events. Create a mosaic of past, present, and likely future values. Forecast how future values and conditions will cause people to act in the year 2000.
4. Ask students to do a thorough in-depth study of a particular event, interpreting it from sociological, psychological, political, and economic perspectives.

5. Have particular students uncover the reasons why specific civilizations have declined and then determine if some of these same forces are causing our current civilization to lose its vitality, its sense of of destiny and mission, and its ability to prevent decay and eventual destruction.
6. Have students determine how past events have created the kind of world in which we live today and how current events will shape the world of the future. This vision of the future may determine how people act today.
7. Build an understanding of social studies concepts and generalizations through classroom activities that not only promote understanding of these concepts but also advance English and developmental skills. (20)
8. Ask classroom questions that provoke dialogue at the application, analysis, synthesis, and evaluation levels of the *Taxonomy of Educational Objectives.* (50)
9. Use the social studies class not only as a forum for the acquisition of advanced knowledge but also as a forum for systematic improvement of rationality and creativity.

Strategies—Specific Suggestions

The following strategies are suggested for teaching social studies in grades 7 through 12.

Grades 7 Through 9

1. Expose students to major theories, understandings, and operations of each of the social sciences—psychology, sociology, and economics.
2. Relate learnings to the accomplishment of developmental tasks that move students toward adulthood. (20)
3. Train students in inquiry and problem-solving skills. Involve students in community studies, and have them develop and submit recommendations to local governing boards such as the board of education, etc.

4. Engage students in a study of logic as a precursor to learning research skills.
5. Involve students in a study of human behavior—how human behavior is influenced by the social and physical environment, why and how values are changing in the United States.
6. Study the values and behavior of different cultures, the contributions of different cultures to our country, and how cultural values and modes of behavior are accommodated in different multicultural societies.
7. Have children create statements of their own personal code; identify behavior that is consistent or inconsistent with that code; compare these codes with the teachings of great philosophers, religious leaders, the founding fathers of the United States, presidential candidates, and statesmen.

Grades 10 Through 12

1. Compare present learning activities, knowledge, skills to those practiced or acquired in earlier studies.
2. Interpret political speeches and campaigns and economic indicators and trends.
3. Develop criteria of significance and apply these in determining which issues and which political candidates advocate positions consistent with basic values of our culture.
4. Understand human motivation and learn to appreciate alternative ways of relating to one another.
5. Extrapolate knowledge of events of the past and present to hypothesize what may take place in the future.
6. Make it a habit to look at events from more than one perspective or framework; seek fundamental causes.
7. Identify propaganda and advertising techniques. Look beyond the message, and judge the validity of assertions and claims of value.
8. Value the contributions made by various cultures to American political thought, literature (including protest literature), art, music, social customs, and recreation.

A Sample Unit for Middle School Gifted

The Study of Creative People (4)

The major concepts from the social science disciplines are all related to the study of the central theme, people. Thus, for the gifted child, concepts dealing with creative people may be interwoven with structural bases in the social sciences. Creative people may be introduced deliberately in fourth-grade materials. Even at this early intermediate level, gifted students will have been exposed to prior learning about persons who have achieved. As the students progress through the intermediate grades and beyond, they will gain increased cognitive and affective comprehension of what it means to be a creative, productive person.

The basic plan would be that students elect to become involved in long-term study. Some students might prefer to devote themselves to an in-depth study of one person or category of persons; other students might select a time span to study across the breadth of several categories of creative persons or might contrast present, past, and future times. Comparisons of characteristics or syntheses could lead to multiple possibilities for activities involving productive thinking and affective awareness of creative qualities.

Guiding Questions

As guides to major concepts from the social sciences, the following questions may be interspersed throughout the study of creative people to encourage a broad pursuit of ideas on the topic. The teacher, or the teacher and students together, may choose those areas of focus for investigation, discovery, and discussion.

Physical Geography

1. How have differences in climate affected the lives and productivity of creative men and women?
2. Have some creative persons been especially affected by the climate where they lived?
3. How have creative men and women adapted and modified their lives in response to problems presented by climatic conditions?
4. What other physical conditions of the land have limited or helped creative persons?

Cultural Geography

1. In what way has each creative person's environment in a particular locale contributed to his or her economic welfare?
2. How have social and societal patterns in each creative person's environment affected his or her behavior?
3. In what ways has the political environment modified the creative productivity of each creative man or woman?
4. In what parts of the world have economic, social, and political factors increased people's productivity?
5. In what areas have conditions been such that creative people have been greatly inhibited in their productions?

History

1. How would you present the sequence of development of creative men and women in each of the sciences; in the several forms of art; in literature (prose and poetry); in social leadership; in inventions; and in other areas?
2. Why have changes, creative productions, and inventions taken place more rapidly in certain periods in history?
3. What has contributed to the inhibition or delay of creative progress in other periods in history?
4. What have been some of the common characteristics of creative men and women in the different periods in history?
5. What are the implications for creative progress at this time?
6. What are some predictions for creative men and women in the future?
7. What may be the effects of a cultural heritage on various kinds of creativity?
8. What has appeared to be the role of ideals, ethics, and moral values in the development of people's creativity?
9. How would you collect, specify, analyze, and interpret data related to any of the previous questions?

Political Science

1. What has been the importance of the state or the nation in the development of a particular creative person?
2. How has a particular country's philosophy of gov-

ernment affected the creativity of men and women in that country?

3. What may be the particular conditions that foster "social invention"?

4. Why do certain countries appear to have more flexible and creative people leading their governments?

5. How may people someday invent an effective international, even global and interplanetary, political system based on humanistic ideals?

6. What are the conditions under which civilization produces larger measures of freedom to be creative?

7. What are some of the differences involved between a political climate in which creative persons are contributing to humanity and a political climate in which creativity develops more in terms of self-interest only?

8. Is democracy necessary for the fostering of creative productivity in citizens?

9. How do creative persons show their responsibility as citizens?

Economics

1. How have creative persons contributed to the economic welfare and economic progress of society?

2. What are the relationships between the creative arts (painting, music, and literature) and the productivity of the economy?

3. What evidence is there that some creative people are productive despite economic deprivation?

4. Does competition foster or inhibit creative thinking? Why?

5. What may be the relationship between standard of living and creativity in various countries?

Anthropology

1. What are the factors contributing to the evolution of more creative cultures?

2. How would one characterize the development of less creative cultures?

3. What is some of the earliest evidence of the human being's ability to adapt and adjust to his or her natural environment?

4. In what ways are creative men and women more inventive in adapting to their natural environment than are other men and women?

5. What would it have been like to be a creative person 1,000 years ago? 500 years ago? 100 years ago?

6. How is a person's cultural background related to his or her creativity?

7. How do various cultures place different sets of values on kinds of creativeness?

8. What are the creative opportunities and the urgent problems that need resolution in our culture today?

9. What basic changes in the culture will be made in the next 100 years?

10. What are some of the problems that people must resolve to promote the welfare of humankind and mutual respect for various cultural patterns?

11. Are there variations in the creative productivity of various ethnic groups? If so, why do such differences exist?

12. What is the responsibility of society to the creative person?

Psychology

1. How does the creative person behave among other people?

2. What are the special needs of creative persons?

3. How are creative men and women like or unlike other people?

4. To what extent do creative persons need social groups of other people?

5. What have been the effects of group membership on the productivity of various creative persons?

6. How mature are creative persons in comparison with other persons of the same chronological ages?

7. What are the personality characteristics of creative persons in comparison with those of other persons?

8. How do creative persons value socialization?

Sociology

1. Are there any special conflicts of creative persons with their social systems?

2. How do these conflicts come about?

3. How do creative persons communicate their new ideas to other persons?

4. How may a person realize more of his or her own possibilities to produce in creative ways?

5. What may be some of the effects of social class on creative performance?

6. What is the probable relationship of prestige to future creativity?

7. Does the creative person relate well to the established goals of a society? Why?

8. How do creative people in one culture relate to creative people in another culture?

9. Are some societies more creative than others? Why?

10. How do such societies adapt and progress more rapidly than others?

11. What is the difference between social invention and social revolution?

Philosophy

1. How do the creative person's values and philosophies relate to his or her personal style of creating?

2. How do logic and emotions influence creative productivity?

3. How do creative persons judge their works?

4. Why may there be a lag between society's decision that creative work has value and the creator's opinion that his or her work is outstanding?

5. Do creative persons prefer a philosophical emphasis upon ideas rather than "things"? Why?

6. What is a creative man, woman, or child?

Suggested Activities

Gifted students and their teachers will discover a greater wealth of understanding about creative persons if they themselves study together ways of developing their own innovative activities related to the mainstream of the unit of study. The basis for planning further activities may be found in Catherine Bruch's *Teaching Gifted Children Social Sciences in Grades Four through Six*. To ensure that the choice of activities is left to the individual teacher and

classroom group, only a few procedures and suggestions are given as follows:

1. Procedures
   a. Frequently discuss different kinds of thinking with the class. Have the children and the teacher recognize the need for varying procedures when some kinds of productive thinking are not being used.
   b. Plan regular periods for applying definite practice in productive thinking activities.
   c. Create a growing climate of openness for studying and using creative processes described by creative persons.
   d. Form the habit of examining ideas for logic, imaginativeness, and constructive criticism.
   e. Before starting an investigation or research, have the students take inventory of the facts already known. Build on the known and compare lists of before and after.
2. Suggestions
   a. Have the students write divergent thinking questions for discussions of state textbooks and other references.
   b. Produce valid materials and activities that have not appeared in texts, reference books, or audio-visual materials about creative persons as if the students were the persons(s) or lived in the times of the person(s). Use these materials for teaching others.
   c. Permit student committees to study the films on creative people and to plan to teach others through selecting films and activities for other students.
   d. Have the students create scenery and plays; write news items, poems, music, and stories; devise simulation and "Twenty Questions" games, crossword puzzles, mysteries, treasure hunts, and the like about creative persons.
   e. Role-play or enact spontaneous drama following film showings or study from other sources.

f. Live for a day or week as if each person in class assumed the character he or she has studied intensively.
g. Portray creative persons from different eras and write about or dramatize what occurred when they met.
h. Write a newspaper article on the creative person with an editorial opinion on his or her production.
i. Have the students write their biographies. . . . Have them evaluate the results of their lives.
j. Have the students put themselves in the time in history of a creative person and design a cartoon with a caption or punch line of either the person or his or her production.
k. Have students make a list of commonalities and/or differences that they like and build them into their own philosophy. Put the philosophy down in words.
l. Form a "Tell the Truth Panel" to present false as well as true statements for group judgment. Determine who is telling the truth.
m. Have the students form their own research and then develop their own criteria for judging creative people.
n. Develop a statistical chart on a set group of persons, showing age, sex, location in the world, level of education, disabilities, and so forth. Make deductions.
o. After serious research, plan a talk show type of discussion between three persons, representing different categories, on an issue that affects all of them. Have audience input.
p. Develop a court trial against the product of a creative person (for example, atomic bomb, vaccinations, and so forth).

Sample Activities for Gifted and Talented Students

Dr. Donald F. Popham has identified "critical judgment" and "reflective reasoning" as key skills to be de-

veloped through social science instruction. The following excerpts are from a publication Dr. Popham developed for the California State Department of Education. (42)

Critical Judgment

The exercise of critical judgment is perhaps the single most important skill to be developed in social science instruction. The gifted student, because of his superior intellectual powers, can quickly learn how to search for causes and draw sound conclusions. He can grasp the meaning of a statement. Because of the crucial importance of the skill of critical judgment in the social sciences and in the life of the social order, social science educators must teach their pupils, especially the gifted, to recognize the dimensions of critical judgment that follow:

1. Whether or not there is ambiguity in a line of reasoning
2. Whether or not certain statements contradict each other
3. Whether or not a conclusion follows necessarily from a certain line of argument
4. Whether or not a statement is specific enough
5. Whether or not a statement is actually the application of a certain principle
6. Whether or not an observation is reliable
7. Whether or not an inductive conclusion is warranted
8. Whether or not a problem has been identified
9. Whether or not something is an assumption
10. Whether or not a definition is adequate
11. Whether or not a statement by an alleged authority is acceptable.

Reflective Reasoning

The capacity to reason reflectively and humanely on the problems of man and his world is a major characteristic of giftedness and the chief purpose of teaching the social sciences. Reflective reasoning is the development of improved insight by the utilization of one's capacity to analyze and to integrate knowledge. Reflective reasoning is thought

controlled by an end, decision making; its basis is grounded and tested belief. While reflective reasoning should be stressed in high school social science programs for the gifted, the fundamental objectives to be kept in sight are (1) the furtherance of the student's understanding of himself, his fellow man, and their society; and (2) the development of abilities to cope with the realities of the world.

Content of Inquiry

To accomplish this task of developing reflective reasoning, classroom inquiry must center on settings, scenes, and situations that contribute most to the development of these intellectual skills, even to the extent that this procedure leads inquiry into areas of controversy and into negative as well as positive aspects of our own society and of other societies. The good mind is not nourished by dreary and conventional descriptions of fact; it is largely by studying controversial matters and ideas that intellectual fulfillment is most likely to occur. The study of absorbing, controversy-producing problems develops persons who are informed and flexible enough to make wise decisions.

High School Program

A program of reflective reasoning for high school social science classes for the gifted should be composed of (1) the reasoning processes, the mastery of which is the principal objective of the program; (2) concepts and generalizations drawn from the social sciences to be used as tools for understanding man in society; and (3) settings, scenes, and situations that are the phenomena, times, and places providing the context of the study unit.

Inquiry Processes

Inquiry processes of reflective reasoning consist of analytic reasoning, integrative reasoning, and decision-making reasoning. A concept, which is an intellectual tool to be used in inquiry, is defined as an idea that comprehends the essential attributes of a class or logical species. A generalization, which is a general inference or proposition, is a statement of relationships among conceptualized patterns of behavior, either analytic or integrative.

Settings, scenes, and situations may be selected for one or more of the reasons that follow:

1. To help the student answer the human identity questions, Who am I? or Who are we?
2. To meet developmental needs of students for certain kinds of understandings that may vary according to age, experience, and background
3. To provide certain kinds of information considered necessary, such as geographical knowledge of the world and data about the structure and function of American government
4. To provide knowledge needed as a foundation for later advanced learnings.

Activities designed to help gifted students develop skills in critical judgment and reflective reasoning may be grouped into units. Samples of these units and activities follow.

Sample Unit: Changes in Social Structures

Activities

1. Distinguish a series of logical happenings that led to the discovery of America.
2. Evaluate why England was the most successful colonial power.
3. Deduce why it was natural that English colonists would develop a way of life distinctly their own.
4. Relate how the affairs of colonists were inextricably tied to and involved in the affairs of the British Empire.
5. Infer a relationship between colonial wars and the struggle of France and Britain for world supremacy.
6. Document the fact that the day of American independence was precipitated by the passage of British laws to establish a strong imperial organization in the colonies.

Sample Unit: Development of a Sense of Nationality

Activities

1. Interpret why the postwar years of a country are

necessarily those involving social and economic adjustment.

2. Deduce why, in addition to socioeconomic adjustment, America had to cope with her new political status following the Revolution.

3. Analyze how the thirteen colonies passed from a weak confederation to a federal union that could be made strong.

4. Identify the governmental precedents that were carefully established and the method whereby international diplomacy prevented all-out wars with European antagonists.

5. Recognize how the Federalists secured the foundations of the young republic and why their methods aroused opposition.

6. Distinguish political, economic, social, and geographical reasons for the development of political parties.

7. Recall how the United States doubled its size during Jefferson's first administration.

8. Deduce why the United States entered a war of so little consequence in 1812.

9. Classify the elements of the new nationalism from 1801 to 1824.

10. Interpret Jacksonian democracy as a second American Revolution.

11. Identify the political, social, intellectual, and humanitarian manifestations of Jacksonian democracy.

Sample Unit: Concentration of Power in America

Activities

1. Recognize the economic revolution wrought by the Civil War, which ushered in a remarkable period of industrialization that changed America from an agricultural economy to an industrial power.

2. Deduce why the Progressive Movement was merely the climax of a trend that had been gaining force in the nineteenth century.

3. Recognize that the purpose of the Progressives was to check the growth of privilege and monopoly.

4. Analyze the reasons why the country was tired of domestic reform during the 1920s.

5. Identify why the presidential campaign of 1932 was one of a crucial half-dozen campaigns in American history that clearly mark sharp turns in the stream of events.

6. Contrast the arguments of the critics and defenders of the New Deal, the Fair Deal, and the Great Society.

[7. Examine current problems and policies with respect to how the nation is continuing to cope with the growing concentration of power in business, labor, agriculture, and other aspects of life.]

Sample Unit: Relations with Other Countries

Activities

1. Recognize how the growing industrial and commercial might of America made her aware of the possibilities that lay beyond her natural borders.

2. Identify the colonial problems that emerged for America as a result of the Spanish-American War.

3. Deduce the important place in the precarious European balance-of-power system America unknowingly assumed when she entered world politics.

4. Analyze why the country was tired of international turmoil during the 1920s.

5. Distinguish why America, realizing the threat of the Axis powers, became increasingly partisan in thought and deed.

6. Recall how America plunged headlong into the war and helped to bring it to a successful conclusion.

7. Define the major issues in postwar foreign policy.

Critical Thinking

Critical thinking is that set of thought processes by which individuals determine worth, relationships, and likely outcomes. Analytical, reflective, extrapolative, and evaluative skills are used to resolve concerns, achieve understandings, and solve problems. In a sense, critical thinking may be thought of as an umbrella concept or skill development program in which hierarchies or sets of cognitive and affec-

tive objectives and operations are tested, compared, evaluated, and implemented.

Critical thinking encompasses a variety of skills such as searching for validity, comprehending complex issues, ascertaining the meaning of concepts, applying generalizations, and attempting to be rational and objective and logical in determining what is the truth. Of course we may be limited by our senses, by cultural conditioning, and by our awareness of reality. Nevertheless, critical thinking skills can be learned. Students can be taught to distinguish data from opinion, support assumptions, test hypotheses, and use language that communicates clearly. (19, 27, 46)

Critical thinking involves perceiving, analyzing, relating, valuing, questioning, comparing, classifying, interpreting, imagining, seeking closure, and then deciding upon a particular solution or course of action. Also essential to critical thinking are adequacy of definition, agreement on terms, and a willingness to look below the surface of thought for previously unidentified causal factors. Through exercises in critical thinking students examine the legitimacy of authorities quoted and the validity and reliability of observations of social phenomena. Needless to say, the critical thinker should be as rational as possible and should consider data and information from as many sources as possible in reaching decisions and in solving problems. Teachers who develop critical thinking in students make a major contribution to the social and political effectiveness of students.

The general activities below are examples of the kinds of projects students may undertake to develop or demonstrate their critical thinking skills. (51)

Grades Seven and Eight

1. Students will make and test hypotheses, use relevant information, develop generalizations, and avoid overgeneralizations.

2. Students will discuss and identify problems in individual and peer-group relationships, develop alternatives for possible solutions, and predict the consequences of their suggestions.

3. Students will develop a plan for analyzing the impact of a new technology on a developing nation.

4. Students will develop charts and graphs to illustrate changes in educational opportunities for various cultural groups in the United States.

5. Students will work in small groups to develop a plan for resolving a community problem.

Grades Nine Through Twelve

1. Students will extrapolate from past and present conditions and make predictions based on contingent conditions.

2. Students will examine, propose, and evaluate solutions to problems in terms of consequences. They will develop alternatives for possible solutions and predict the consequences of their suggestions.

3. Students will generate proposals for the creative use of alternative materials and processes in an area where resources are diminishing.

4. Students will interpret, generalize, and infer from data and will assess and communicate their ideas and findings effectively through verbal and written presentations.

5. Students will select a problem or topic for study, develop procedures for the investigation of the problem, develop criteria, and evaluate the outcomes of the study.

Critical thinking skills are not the sole domain of the gifted. Therefore, as in all matters of appropriate differentiation of learning opportunities for children with different needs and capabilities, the teacher must determine whether or not the expectations for student performance are really sufficient for the gifted students. The teacher must also decide if the learning activities and learning materials are of sufficient difficulty to permit penetrating analysis, applications of advanced theories, and synthesis of ideas.

Creativity

Creativity is an attitude as well as a process. Through creativity students extend awareness, overcome obstacles to thinking and doing, and produce original and worthwhile products.

As an attitude, creativity encourages the inflow of stimuli and allows these stimuli to be transformed into diverse meanings and forms. Creativity implies an openness

to meaning, and creative individuals can process that which is perceived into original ideas and products. People who are open to new meanings may be free from the influence of prestige or cultural stereotypes. Creative people generally accept and are willing to generate and consider numerous alternatives; they may be free from habitual ways of thinking and doing. Through social studies experiences designed to improve skills such as flexibility, elaboration, expressional fluency, and originality, students can become increasingly effective in adjusting to social groups and in suggesting alternative solutions to social problems.

The term "creative problem solving" refers to the application of certain steps (preparation, incubation, solution formation, and solution verification) for the generation of valid solutions. This process may include preliminary activities designed to increase sensitivity and awareness and help problem solvers distinguish the "real" or core problem from the "apparent" or peripheral problem. For example, the lack of productivity in an educational group may be attributed by administrators to students' poor attitudes toward work. Administrators do not realize, however, that productivity is suffering because the students strongly dislike their teacher and because student values are in direct conflict with those of the educational system. Attempts to deal with the apparent problem (poor attitudes) without knowing the basic or real problem (dislike of the teacher) might only aggravate rather than ameliorate a potentially explosive student-teacher problem.

Solving problems in a creative way involves developing attitudes and procedures that one might characterize as nontraditional, original, and even bizarre. Yet creative problem solving procedures have been endorsed not only by avant garde teachers, but also by blue chip business firms, the U.S. Office of Education, and state departments of education. These diverse groups support creative problem solving techniques simply because these techniques result in more and better solutions to problems.

Creative Experiencing

Creative experiencing means knowing through new awareness, new sensitivity, and new insights. To describe

what life was like in Elizabethan England, to understand what the "walkabout" ritual means to the Australian aborigine, and to imagine what life will be like in the United States in 1994 all require some knowledge of the past and present and some ability to transport oneself in space and time. Teachers can help their students experience history more creatively through plays, films, journals, and speculative writings of futurists. For most students, the vicarious "you are there" feeling enhances the meaning of history. Students gifted with a flair for dramatics can write and produce plays which, perhaps, can give fellow classmates an appreciation for the concerns and accomplishments of other times.

Creative Thinking

Creative thinking means being involved in the development of such traits as associational fluency (the ability to draw relationships among different ideas), expressional fluency (the ability to communicate in a variety of ways), ideational fluency (the ability to derive many ideas from a single stimulus), adaptive flexibility (the ability to modify ideas), originality (the ability to arrive at unique ideas), and of course, elaboration (the ability to expand on a given stimulus). Students should be encouraged to toy with ideas, describe things in new ways, and speculate about new relationships. Students should be allowed to air their feelings of discontent and their desires to reform the world. Curiosity is a valuable commodity and it can be sparked by the social studies teacher who asks such questions as:

> Suppose you could change public education, our system of government, or this class in any three ways. What would they be? Why? What effects would these changes have on other aspects of the system or institution?

Creative Problem Solving

Typically in problem solving we "lock in on" and apply one of the early solutions, even when it might be possible to generate additional solutions and come up with a much better answer. At a special workshop sponsored by the Creative Education Foundation, a group consisting of businesspersons, educators, a medical doctor, and other profes-

sionals were given the task of helping one member of the group resolve a pressing problem. In less than an hour members of the group generated approximately fifty solutions. Ten of the solutions judged best by the person with the problem were among the last twenty generated in the brainstorming session.

Brainstorming is a term that has come to mean:

1. getting compatible and task-oriented persons together, usually in small groups of five to nine persons,
2. agreeing on conditions (a problem) that require an answer,
3. gathering together all the available facts necessary to clarify the problem,
4. motivating members to generate as many solutions as possible in a freewheeling, nonjudgmental setting,
5. encouraging members to "hitchhike" and elaborate on each others' ideas, and
6. determining which of the solutions are valid in terms of selected criteria (e.g., economic, political, or scientific).

The process might stop here with the solutions being turned over to a review and/or decision-making body (e.g., the superintendent of schools). Or the brainstorming group might attempt to prioritize the solutions before passing them on. Such groups may also suggest alternative ways to implement the solutions.

Brainstorming, as an exercise in creativity, can be practiced in all grades in classroom management committees, in student government, in leadership programs, and in any problem-solving group.

The following guidelines, developed by the East Whittier School District may facilitate brainstorming sessions: (54)

I. Purposes of brainstorming
   A. To create a great number of ideas which leads to more quality in those ideas.
   B. To open people up to sharing ideas without fear of criticism.

C. To enable members of the group to build on each others' ideas.

II. Procedure

A. The leader states a definite problem.

1. Make it specific and simple.
2. Examples
   a. List all the things people can do to live comfortably during a time of inflation.
   b. What reasons are there, other than national security, for maintaining friendly relations with Yugoslavia?
   c. How might human beings become more rational, more creative, or more compassionate in dealing with migrants or refugees from other countries?
   d. What social conditions contribute to a rising crime rate?
   e. What might be done to drastically reduce school vandalism?

B. State the rules for brainstorming.

1. No criticism—all ideas are accepted.
2. Make your ideas freewheeling—as way out as you want to make them.
3. Build on the ideas of others—someone may give you an idea you can elaborate upon.

C. Restate the problem and as the children give their ideas, list them on the board with NO comment.

D. After fifteen to twenty minutes, stop the brainstorming—Comment on the amount and variety of responses.

E. Evaluate each idea by using standards you have set up, such as:

1. Does it actually solve the problem—or does it create new ones? (Does it build or help society?)
2. Is it possible to use it either now or in the near future? (Is it practical?)
3. Are human beings really able to handle it? (Is it compatible with human beings?)

F. Leave on the blackboard those ideas that the children decide fit the criteria.

III. After brainstorming, you may discuss feelings and how the ideas came about.

IV. Then each child may take any idea and develop it by:
   A. Making a labeled diagram or design of the idea or object.
   B. Making a model of the idea.
   C. Writing an explanation of this application of the idea.
   D. Creating an "invention"—by combining the ideas from the board.

Application of Creativity in Social Studies

How then is the mastery and use of creative expression, creative thinking, and creative problem solving relevant to American and world history, anthropology, sociology, geography, economics, and political science? If your teaching style requires that students mainly memorize facts, then such techniques may have little immediate value. If on the other hand, you are helping the gifted understand how the most celebrated and successful anthropologists, economists, geographers, historians, and political scientists function, then you can identify a whole range of concerns and problems that these social scientists study and elicit the help of gifted children in arriving at solutions to these problems.

The encouragement of creativity is the responsibility of parents as well as teachers. During 1978 and 1979 a federally supported "Integrative Education" project sought to train gifted children at school in creative problem solving and other advanced skills while teachers and counselors also received such training through inservice education. The parents of these children were trained in these procedures in adult education programs. Although it is too early to determine if this project was successful, it is worthwhile to note that the intent is not only to raise the quality of discourse and experience in the classroom but also to enhance the problem-solving capability in the home and community.

Catherine Bruch states:

> As social studies teachers, we realize that this effort can result in our improved sophistication as teachers and as parents and members of a broader community. Some of the traits of creativity which we may want to cultivate in ourselves as well as in our students are recognition of and "tolerance for ambiguity, fondness for complexity, desire for an integrated whole, independence of judgment, flexibility, originality, and spontaneous humor." Creative persons often resist the premature closure of problem solving; they are able to accept conflict and permit into their awareness unique, strange, and even bizarre imagery. They are open to experiencing both the inner self and the outer world. The open-mindedness allows a clutter and disorder until the person finds a higher order of integrating and reconciling principles. Although some creative persons view from a broad rather than a narrow perspective, others see only the details. In children these characteristics may be less pronounced; it remains to be seen whether they are forerunners of adult creativity or whether imagination is a better indicator.
>
> The adult will search for new solutions and combine elements that are perhaps apparently unrelated. Is his openness and his access to ideas and feeling, he is able to be more imaginative and original. Through his flexibility he tries many ideas and may persist in trying so many ideas that he does eventually find an original one. His independence in judgment is not purposefully nonconforming, but it is rather a tenacity about the validity of his own creative efforts. Children need immediate support when they evidence this kind of action. (5)

Taxonomic Approaches—Use of the Cognitive Domain

Experts in gifted child education maintain that children in the upper two to five percent in intellectual ability should spend at least 70 percent of their in-class time translating, interpreting, extrapolating, applying, analyzing, synthesizing, and evaluating. No more than 30 percent of their in-class time should be spent in acquiring knowledge, since these students are able to perform this task independently. Of course, acquisition of knowledge is the building block upon which the other skills depend, and knowledge is an essential prerequisite to creative production. However, be-

cause bright minds often acquire knowledge so rapidly, the unprepared teacher is often tempted to involve bright students in time-consuming "busy" activities, use them in "help the teacher" or "help the school" projects, or give them additional questions to answer at the end of the chapter. Some teachers allow gifted students to progress through content that was supposed to have been covered the next day, the next week, or the next month, constantly working at the knowledge level.

Teaching and learning can be improved in many social studies classrooms if teachers ask themselves which of the following cognitive skills receive daily (d), weekly (w), or no (n) emphasis in learner objectives, discussions, required work, curricular materials, test questions, and systems of reward. (42, 2)

- Knowledge
- Translation
- Interpretation
- Extrapolation
- Application
- Analysis
- Synthesis
- Evaluation.

After indicating (d) or (w) or (n), teachers can decide which of these skills might receive greater emphasis. At that point, teachers can begin the process of writing objectives, framing sample questions, (25) listing assignments, acquiring curricular materials, developing examination questions, and creating reward systems for advancing those skills.

Knowledge, of course, involves remembering an event, a fact, a generalization, a principle, or a theory. For example,

1. What nations of the world have the capability of manufacturing nuclear weapons?
2. What group of persons in the United States are generally credited with alerting the nation to the need to withdraw from the Vietnam War?
3. List three inventions that have been instrumental in leading the United States to become a major industrial nation.

Comprehension means a thorough understanding and

involves translation, interpretation, and extrapolation. Adeptness in each of the three comprehension skills is evidence that the student has mastered certain aspects of a field of study.

Translation refers to the ability to communicate an idea or an event in a different form—e.g. changing symbolic into semantic form, changing literal into metaphoric form, or changing one language into another language. For example,

1. What do the following stand for: SALT II; IYC; ICBM; UNESCO; MAY DAY; and GIGO?
2. Portray the meaning of the Declaration of Independence through an original montage of photographs or oil paintings.
3. Change the Bill of Rights from an English into a Spanish version.
4. What is the meaning of *macho? Weltanschauung? Cogito ergo sum?*

Interpretation means ascertaining relationships that exist among ideas, generalizations, concepts, principles, laws, theories, events, categories, and so forth. For example,

1. What does George Leonard mean when in the introduction to *The Metaphoric Mind* he writes, "To help poor nations we send them wheat and bulldozers and penicillin, and destroy the social order of a thousand years." (24, 49)
2. In what ways are the inscription on the Statue of Liberty, the acceptance of Vietnam refugees, and our treatment of Mexican nationals who attempt to enter the United States illegally consistent or inconsistent with American immigration policy?
3. State from your own perspective and background, and in your own words, the role religion plays in the world today.

Extrapolation refers to progression from a given set of facts or circumstances to a different set of facts or circumstances. Questions that call for extrapolation are usually framed as: "If these are the conditions, then what is likely to result?" Even at the second grade level, teachers can elicit extrapolation by asking, for example, "Suppose you could do three things to make children of all races happier. What would you do?" For older students, teachers could ask,

1. If fossil fuels are limited and if nuclear fission has inherent safety hazards, what should be the policy and the program of the federal government in exploring and developing other energy sources?
2. If tax reform has resulted in police patrol cars having one instead of two officers at night, what additional survival mechanisms should the single officers employ in dangerous situations?

Application means using the facts, principles, rules, laws, and understandings acquired in one situation in another situation. For example,

1. Apply appropriate principles from the Bill of Rights to govern members of a family in their home.
2. Apply the principles of conservation and intelligent development of natural resources to the goal of providing special education programs for gifted and talented children.
3. Use creative problem solving skills to help solve a family problem or a community problem.

Analysis refers to looking at the component parts of a problem, a situation, or an organizational structure in order to determine why people behave as they do or why something is as it is. For example,

1. What are the key elements in the U.S. government's anti-inflation strategy?
2. Identify surveillance and reporting techniques most favorable to Japan in the international agreements on whaling and fishing.
3. Examine available figures to determine what percentage of different racial and ethnic groups are represented in juries, in government jobs, in beauty and athletic contests.

Synthesis means bringing ideas and things together in a new form. Synthesis is a primary component of creative behavior. For example,

1. Make a computer model of changing weather patterns and job output.
2. Use the model to predict job turnover and changes in productivity.
3. Design a plan to increase productivity when weather conditions may tend to depress output.

Evaluation involves judgments about the value, purpose, or quality of an idea or item. For example,

1. Determine the reliability of short-range and long-range weather forecasts.
2. Determine whether a plan based on weather forecasting can really improve employee productivity:
   - Does the plan consider enough factors affecting productivity?
   - Does the plan increase productivity 5 percent, 10 percent, 20 percent, 50 percent, or higher?
   - Does the plan lose its effectiveness over time?
   - Is the plan welcomed by employees?

Sample Unit

The questions and activities suggested above were geared to different cognitive levels. It is useful now to look at a sequence of activities—from knowledge through evaluation—from a single unit focusing on adaptation to the physical environment.

1. *Knowledge:* Study satellite maps and other weather maps, meteorology books, and handbooks. Know terminology about clouds, high and low pressure areas, etc., and type of weather associated with each.
2. *Translation:* Examine a series of weather maps. Write a newspaper article that contains the same information.
3. *Interpretation:* Indicate how changes on the weather maps have influenced the daily living and work of persons in different careers in different parts of the country. Why do people live in areas where the weather is harsh?
4. *Extrapolation:* From data furnished by a seismologist, pinpoint the most likely area for the next major earthquake (with a Richter Scale magnitude of 7.8). How would an earthquake of this magnitude affect the people of Los Angeles?
5. *Application:* Using the data above, advise your friends whether to:
   a. go or not go fishing off San Francisco Bay.
   b. purchase a summer home in Houston or Austin, Texas.

c. wear windbreakers on a picnic next Sunday at Stevens Point, Wisconsin.
d. go on a walking tour of New York City or Washington, D.C.

6. *Analysis:* Study long-range forecasts. How are they made?
7. *Analysis/Synthesis:* Analyze statistics, descriptive information in job announcement brochures, weather data, and newspaper reports to determine: (a) the extent of seasonal unemployment and how that is affected by the weather; (b) if the weather on a given day fosters or hinders productivity.
8. *Evaluation:* Develop evaluative criteria. Then using a sample of 100 farmers judge the relative merits of the farmer's plans to plant their crops by:
   a. advice given in *The Farmers Almanac.*
   b. long-range predictions published in the paper.
   c. daily weather forecasts on the radio.
   d. their intuitive and general understanding of how the weather will change—e.g. the smell in the air sometimes before it rains in the Mideast.

CONCLUSION

Social studies teaching involves more than transmitting the cultural heritage, imparting knowledge from the social sciences, and developing citizenship and social skills. (31) It involves raising social intelligence and helping students acquire values that will guide them and our nation.

By attending to the needs of gifted and talented children, teachers can learn more about human intelligence and creativity and can acquire skills through which they become more effective, more rational, and more creative as teachers and as human beings.

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This publication is designed for Social Studies teachers of grades 7-12. It is based on the premise that teachers recognize many of tomorrow's generation of leaders and thinkers will emerge from today's population of gifted and talented students. However, we must guard against viewing this special class of students as an homogenous group, a bulk human resource from which new ideas and products will emanate. These young people have individual strengths and weaknesses and needs, and it is the teacher's primary responsibility and concern to provide an educational setting in which each student can fully realize her or his potential.

Teaching the Gifted and Talented in the Social Studies Classroom describes the characteristics of the gifted and talented, shows how the social studies teacher can identify them, and describes appropriate classroom strategies. Suggestions for developing creativity and intelligence are used to provide challenging, meaningful, and appropriate learning opportunities for the gifted within regular class, special class, and tutorial settings.

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